

#### **405 KAR 18:090. Sedimentation ponds.**

RELATES TO: KRS 151.100, 151.250(3), 350.020, 350.100, 350.151, 350.420, 350.465, 30 C.F.R. Parts 730-733, 735, 817.46, 917, 30 U.S.C. 1253, 1255, 1266

STATUTORY AUTHORITY: KRS 350.028, 350.151(1), 350.465(2), 30 C.F.R. Parts 730-733, 735, 817.46, 917, 30 U.S.C. 1253, 1255, 1266

NECESSITY, FUNCTION, AND CONFORMITY: KRS 350.028(1), (5), 350.151(1), and 350.465(2) authorize the cabinet to promulgate administrative regulations relating to surface and underground coal mining operations. This administrative regulation establishes the requirements for the location, design, construction, certification, maintenance, removal, and retention of sedimentation ponds for underground mines.

Section 1. General Requirements. Sedimentation ponds shall be used individually or in series and shall:

- (1) Comply with Sections 1 through 6 of this administrative regulation and 405 KAR 18:100;
- (2)(a) In accordance with 405 KAR 18:100, Section 1(2), be designed and certified by a qualified registered professional engineer as meeting the requirements of Sections 1 through 6 of this administrative regulation and 405 KAR 18:100;
- (b) In accordance with 405 KAR 18:100, Section 1(9), be inspected during construction by or under the direct supervision of the responsible registered professional engineer, and after construction be certified by the responsible registered professional engineer as having been constructed in accordance with the approved design plans;
- (3) Be constructed and certified under subsection (2) of this section before any disturbance in the watershed that drains into the sedimentation pond and prior to any discharge of water to surface waters from underground mine workings; and
- (4) Be located as near as possible to the disturbed area and out of perennial streams, unless approved by the cabinet, pursuant to the cabinet's authority in KRS 350.050.

Section 2. Sediment Storage Volume. Sedimentation ponds shall provide adequate sediment storage volume as approved on a case-by-case basis by the cabinet based upon the anticipated volume of sediment to be collected and a feasible plan for clean-out operations. The plan shall include a time schedule or clean-out elevations, or an appropriate combination, that shall provide periodic sediment removal sufficient to maintain adequate volume for the sediment to be collected during the design precipitation event under Section 3 of this administrative regulation. The proposed clean-out plan shall be included in the design and shall be approved if the cabinet determines that the proposed plan is feasible.

Section 3. Detention Time. Sedimentation ponds shall be designed, constructed, and maintained to:

- (1) Provide detention time such that discharges from the sedimentation pond shall meet the requirements of 405 KAR 18:070, Section 1(1)(g); and
- (2)(a) Contain the runoff from the ten (10) year, twenty-four (24) hour precipitation event by providing a runoff storage volume, between the top elevation of the design sediment storage volume and the principal spillway elevation, equal to or greater than the runoff from that precipitation event. The cabinet may approve a smaller runoff storage volume based on terrain, the amount of disturbance, other site specific conditions, and a demonstration by the permittee that the effluent limitations of 405 KAR 18:070, Section 1(1)(g) will be met; or
- (b) Treat the runoff from the ten (10) year, twenty-four (24) hour precipitation event by using other treatment facilities in conjunction with adequate runoff storage volume, so that the effluent limitations

of 405 KAR 18:070, Section 1(1)(g), will be met.

Section 4. Dewatering. The water storage resulting from inflow shall be removed by a nonclogging dewatering device or spillway approved by the cabinet, pursuant to the cabinet's authority in KRS 350.050. The dewatering device or spillway shall not be located at a lower elevation than the top elevation of the design sediment storage volume.

Section 5. Other Requirements. (1) Each permittee shall design, construct, and maintain sedimentation ponds to prevent short-circuiting to the extent possible.

(2) The design, construction, and maintenance of a sedimentation pond or other sediment control measures in accordance with Sections 1 through 6 of this administrative regulation shall not relieve the permittee from compliance with 405 KAR 18:070, Section 1(1)(g).

(3) The design shall take into account the volume of water and sediment contributed by the underground mine discharge.

(4) Sediment shall be removed from sedimentation ponds in accordance with the approved clean-out plan.

(5) Spillways shall be provided in accordance with 405 KAR 18:100. Emergency spillway grades and allowable velocities shall be approved by the cabinet.

(6) Sedimentation ponds shall be properly maintained and shall not be removed until the requirements of 405 KAR 18:070, Section 1(1)(b) have been met.

(7) Sedimentation ponds shall be removed prior to final release of bond liability for the permit area unless retention of the pond is approved by the cabinet under subsection (8) of this section. After a sedimentation pond is removed, the affected land shall be regraded and revegetated in accordance with 405 KAR 18:190 and 405 KAR 18:200.

(8) If the cabinet approves retention of a sedimentation pond as a permanent impoundment, the sedimentation pond shall meet all the requirements for permanent impoundments under 405 KAR 18:060, Section 10, and 405 KAR 18:100.

Section 6. Other Treatment Facilities. (1)(a) This section applies to "other treatment facilities" as defined in 405 KAR 18:001.

(b) Other treatment facilities may be used in conjunction with sedimentation ponds.

(c) Other treatment facilities may be used in place of sedimentation ponds, if specifically approved by the cabinet for that purpose on a case-by-case basis, pursuant to the cabinet's authority in KRS 350.050.

(2) Other treatment facilities shall be designed to treat the ten (10) year, twenty-four (24) hour precipitation event unless a lesser design event is approved by the cabinet based on terrain, climate, other site-specific conditions and a demonstration by the permittee that the effluent limitations of 405 KAR 18:070, Section 1(1)(g), will be met.

(3) Other treatment facilities shall meet all requirements for sedimentation ponds, if the requirements can be appropriately applied to the other treatment facilities. The cabinet shall determine the applicable requirements on a case-by-case basis depending upon the type of other treatment facilities. In every case the other treatment facilities shall be designed, constructed, and maintained to:

(a) Be located as near as possible to the disturbed area and out of perennial streams unless approved by the cabinet, pursuant to the cabinet's authority in KRS 350.050;

(b) Provide adequate sediment storage volume, as approved on a case-by-case basis by the cabinet based upon the anticipated volume of sediment to be collected during the design precipitation event and a feasible plan for clean-out operations;

(c) Provide adequate detention time so that the discharges shall meet the requirements of 405

KAR 18:070, Section 1(1)(g);

(d) Minimize short circuiting to the extent possible; and

(e) Provide periodic sediment removal sufficient to maintain adequate volume for the design event. The proposed plan for clean-out operations shall be included in the design and shall be approved if the cabinet determines it is feasible. The plan shall include a time schedule or clean-out elevations, or an appropriate combination, sufficient to maintain adequate volume for the sediment to be collected during the design precipitation event. (8 Ky.R. 1565; Am. 9 Ky.R. 711; eff. 1-6-83; 10 Ky.R. 821; eff. 4-23-84; 24 Ky.R. 738; 2670; eff. 6-10-98; 29 Ky.R. 548; 943; eff. 10-9-2002.)